#6

1653

RAW SEQUENCE LISTING DATE: 05/30/2001
PATENT APPLICATION: **US/09/768,781** TIME: 15:14:34

Input Set : **A:\Seqlist.txt**
Output Set: **C:\CRF3\05302001\I768781.raw**

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 4 <110> APPLICANT: MERKULOV, Gennady V. et al
 6 <120> TITLE OF INVENTION: ISOLATED HUMAN TRANSPORTER PROTEINS,
 7       NUCLEIC ACID MOLECULES ENCODING HUMAN TRANSPORTER PROTEINS,
 8       AND USES THEREOF
10 <130> FILE REFERENCE: CL001057-CIP
12 <140> CURRENT APPLICATION NUMBER: 09/768,781
13 <141> CURRENT FILING DATE: 2001-01-25
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17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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20 <211> LENGTH: 1350
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22 <213> ORGANISM: Human
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26 gaagatgtca tccgtggagc caacccccga tttacttttc catttagcat ccttttctcc 120
27 acctttttgt actgtgggga ggctgcatct gctttgtaca tggttagaat ctatcgaaag 180
28 aatagtgaaa cttaccggat gacatacacc ttttctttct ttatgttttc atccattatg 240
29 gtccagttga ccctcatttt tgtccacaga gatctagcca aagataaacc gctatcatta 300
30 tttatgcatc taatcctctt gggacctgtt atcagatgtt tggaggccat gattaagtac 360
31 ctcacactgt ggaagaaaga ggagcaggag gagccctatg tcagcctcac ccgaaagaag 420
32 atgctaatag atggcgagga ggtgctgata gaatgggagg tgggccactc catccggacc 480
33 ctggctatgc accgcaatgc ctacaaacgt atgtcacaga tccaagcctt cctgggctca 540
34 gtgccccagc tgacctatca gctctatgtg agcctgatct ctgcagaggt tcccctgggt 600
35 agagttgtgc taatggtatt ttccctggta tctgtcacct atggggccac cctttgcaat 660
36 atgttggcta tccagatcaa gtacgatgac tacaagattc gccttgggcc actagaagtc 720
37 ctctgcatca ccatctggcg gacattggag atcacttccc gcctcctgat tctggtgctc 780
38 ttctcagcca ctttgaaatt gaaggctgtg cccttcctag tgctcaactt cctgatcatc 840
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40 aaaaacttca gccgggtcgg cactctggtg gtcctgattt cagtcaccat cctctatgct 960
41 ggcatcaact tctcttgctg gtcagctttg cagttgaggt tggcagacag agatctcgtc 1020
42 gacaaagggc agaactgggg acatatgggc ctgcactata gtgtgaggtt ggtagagaat 1080
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45 ttcttccagt acttgcatcc attgcgctca ctcttcaccc ataatgtagt agactacctc 1260
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50 <211> LENGTH: 1389
51 <212> TYPE: DNA
52 <213> ORGANISM: Human
54 <400> SEQUENCE: 2
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56 cctgaggagc caaatgtgga tccggtttca tctctggagg aagatgtcat ccgtggagcc 120
57 aacccccgat ttacttttcc atttagcatc cttttctcca ccttttgta ctgtggggag 180
58 gctgcatctg ctttgtacat ggttagaatc tatcgaaaga atagtgaaac ttactggatg 240
59 acatacacct tttctttctt tatgttttca tccattatgg tccagttgac cctcattttt 300
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PATENT APPLICATION: **US/09/768,781** TIME: 15:14:34

Input Set : **A:\Seqlist.txt**
Output Set: **C:\CRF3\05302001\I768781.raw**

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<210> SEQ ID NO: 3
<211> LENGTH: 449
<212> TYPE: PRT
<213> ORGANISM: Human
<400> SEQUENCE: 3

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Phe Pro Phe Ser Ile Leu Phe Ser Thr Phe Leu Tyr Cys Gly Glu Ala
        35                  40                  45
Ala Ser Ala Leu Tyr Met Val Arg Ile Tyr Arg Lys Asn Ser Glu Thr
    50                  55                  60
Tyr Arg Met Thr Tyr Thr Phe Ser Phe Phe Met Phe Ser Ser Ile Met
65                  70                  75                  80
Val Gln Leu Thr Leu Ile Phe Val His Arg Asp Leu Ala Lys Asp Lys
                85                  90                  95
Pro Leu Ser Leu Phe Met His Leu Ile Leu Leu Gly Pro Val Ile Arg
            100                 105                 110
Cys Leu Glu Ala Met Ile Lys Tyr Leu Thr Leu Trp Lys Lys Glu Glu
        115                 120                 125
Gln Glu Glu Pro Tyr Val Ser Leu Thr Arg Lys Lys Met Leu Ile Asp
    130                 135                 140
Gly Glu Glu Val Leu Ile Glu Trp Glu Val Gly His Ser Ile Arg Thr
145                 150                 155                 160
Leu Ala Met His Arg Asn Ala Tyr Lys Arg Met Ser Gln Ile Gln Ala
                165                 170                 175
Phe Leu Gly Ser Val Pro Gln Leu Thr Tyr Gln Leu Tyr Val Ser Leu
            180                 185                 190
Ile Ser Ala Glu Val Pro Leu Gly Arg Val Val Leu Met Val Phe Ser
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RAW SEQUENCE LISTING DATE: 05/30/2001
PATENT APPLICATION: US/09/768,781 TIME: 15:14:34

Input Set : A:\Seqlist.txt
Output Set: C:\CRF3\05302001\I768781.raw

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112 Leu Val Ser Val Thr Tyr Gly Ala Thr Leu Cys Asn Met Leu Ala Ile
113     210                 215                 220
114 Gln Ile Lys Tyr Asp Asp Tyr Lys Ile Arg Leu Gly Pro Leu Glu Val
115 225                 230                 235                 240
116 Leu Cys Ile Thr Ile Trp Arg Thr Leu Glu Ile Thr Ser Arg Leu Leu
117                 245                 250                 255
118 Ile Leu Val Leu Phe Ser Ala Thr Leu Lys Leu Lys Ala Val Pro Phe
119             260                 265                 270
120 Leu Val Leu Asn Phe Leu Ile Ile Leu Phe Glu Pro Trp Ile Lys Phe
121         275                 280                 285
122 Trp Arg Ser Gly Ala Gln Met Pro Asn Asn Ile Glu Lys Asn Phe Ser
123     290                 295                 300
124 Arg Val Gly Thr Leu Val Val Leu Ile Ser Val Thr Ile Leu Tyr Ala
125 305                 310                 315                 320
126 Gly Ile Asn Phe Ser Cys Trp Ser Ala Leu Gln Leu Arg Leu Ala Asp
127                 325                 330                 335
128 Arg Asp Leu Val Asp Lys Gly Gln Asn Trp Gly His Met Gly Leu His
129             340                 345                 350
130 Tyr Ser Val Arg Leu Val Glu Asn Val Ile Met Val Leu Val Phe Lys
131         355                 360                 365
132 Phe Phe Gly Val Lys Val Leu Leu Asn Tyr Cys His Ser Leu Ile Ala
133     370                 375                 380
134 Leu Gln Leu Ile Ile Ala Tyr Leu Ile Ser Ile Asp Phe Met Leu Leu
135 385                 390                 395                 400
136 Phe Phe Gln Tyr Leu His Pro Leu Arg Ser Leu Phe Thr His Asn Val
137                 405                 410                 415
138 Val Asp Tyr Leu His Cys Val Cys Cys His Gln His Pro Arg Thr Arg
139             420                 425                 430
140 Val Glu Asn Ser Glu Pro Pro Phe Glu Thr Glu Ala Arg Gln Ser Val
141         435                 440                 445
142 Val
146 <210> SEQ ID NO: 4
147 <211> LENGTH: 462
148 <212> TYPE: PRT
149 <213> ORGANISM: Human
151 <400> SEQUENCE: 4
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153  1               5                  10                  15
154 Val Tyr Glu Ile Pro Glu Glu Pro Asn Val Asp Pro Val Ser Ser Leu
155             20                  25                  30
156 Glu Glu Asp Val Ile Arg Gly Ala Asn Pro Arg Phe Thr Phe Pro Phe
157         35                  40                  45
158 Ser Ile Leu Phe Ser Thr Phe Leu Tyr Cys Gly Glu Ala Ala Ser Ala
159     50                  55                  60
160 Leu Tyr Met Val Arg Ile Tyr Arg Lys Asn Ser Glu Thr Tyr Trp Met
161 65                  70                  75                  80
162 Thr Tyr Thr Phe Ser Phe Phe Met Phe Ser Ser Ile Met Val Gln Leu
163                 85                  90                  95
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PATENT APPLICATION: US/09/768,781 TIME: 15:14:34

Input Set : A:\Seqlist.txt
Output Set: C:\CRF3\05302001\I768781.raw

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164 Thr Leu Ile Phe Val His Arg Asp Leu Ala Lys Asp Lys Pro Leu Ser
165             100                 105                 110
166 Leu Phe Met His Leu Ile Leu Leu Gly Pro Val Ile Arg Cys Leu Glu
167         115                 120                 125
168 Ala Met Ile Lys Tyr Leu Thr Leu Trp Lys Lys Glu Glu Gln Glu Glu
169     130                 135                 140
170 Pro Tyr Val Ser Leu Thr Arg Lys Lys Met Leu Ile Asp Gly Glu Glu
171 145                 150                 155                 160
172 Val Leu Ile Glu Trp Glu Val Gly His Ser Ile Arg Thr Leu Ala Met
173                 165                 170                 175
174 His Arg Asn Ala Tyr Lys Arg Met Ser Gln Ile Gln Ala Phe Leu Gly
175             180                 185                 190
176 Ser Val Pro Gln Leu Thr Tyr Gln Leu Tyr Val Ser Leu Ile Ser Ala
177         195                 200                 205
178 Glu Val Pro Leu Gly Arg Val Val Leu Met Val Phe Ser Leu Val Ser
179     210                 215                 220
180 Val Thr Tyr Gly Ala Thr Leu Cys Asn Met Leu Ala Ile Gln Ile Lys
181 225                 230                 235                 240
182 Tyr Asp Asp Tyr Lys Ile Arg Leu Gly Pro Leu Glu Val Leu Cys Ile
183                 245                 250                 255
184 Thr Ile Trp Arg Thr Leu Glu Ile Thr Ser Arg Leu Leu Ile Leu Val
185             260                 265                 270
186 Leu Phe Ser Ala Thr Leu Lys Leu Lys Ala Val Pro Phe Leu Val Leu
187         275                 280                 285
188 Asn Phe Leu Ile Ile Leu Phe Glu Pro Trp Ile Lys Phe Trp Arg Ser
189     290                 295                 300
190 Gly Ala Gln Met Pro Asn Asn Ile Glu Lys Asn Phe Ser Arg Val Gly
191 305                 310                 315                 320
192 Thr Leu Val Val Leu Ile Ser Val Thr Ile Leu Tyr Ala Gly Ile Asn
193                 325                 330                 335
194 Phe Ser Cys Trp Ser Ala Leu Gln Leu Arg Leu Ala Asp Arg Asp Leu
195             340                 345                 350
196 Val Asp Lys Gly Gln Asn Trp Gly His Met Gly Leu His Tyr Ser Val
197         355                 360                 365
198 Arg Leu Val Glu Asn Val Ile Met Val Leu Val Phe Lys Phe Phe Gly
199     370                 375                 380
200 Val Lys Val Leu Leu Asn Tyr Cys His Ser Leu Ile Ala Leu Gln Leu
201 385                 390                 395                 400
202 Ile Ile Ala Tyr Leu Ile Ser Ile Gly Phe Met Leu Leu Phe Phe Gln
203                 405                 410                 415
204 Tyr Leu His Pro Leu Arg Ser Leu Phe Thr His Asn Val Val Asp Tyr
205             420                 425                 430
206 Leu His Cys Val Cys Cys His Gln His Pro Arg Thr Arg Val Glu Asn
207         435                 440                 445
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209     450                 455                 460
212 <210> SEQ ID NO: 5
213 <211> LENGTH: 17993
214 <212> TYPE: DNA
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RAW SEQUENCE LISTING DATE: 05/30/2001
PATENT APPLICATION: US/09/768,781 TIME: 15:14:34

Input Set : A:\Seqlist.txt
Output Set: C:\CRF3\05302001\I768781.raw

215 <213> ORGANISM: Human
217 <220> FEATURE:
218 <221> NAME/KEY: misc_feature
219 <222> LOCATION: (1)...(17993)
220 <223> OTHER INFORMATION: n = A,T,C or G
222 <400> SEQUENCE: 5
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225 cctgagtagc tgggattaca gtcacgcacc accacgacca gctgattttt gtatttttag 180
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VERIFICATION SUMMARY DATE: 05/30/2001
PATENT APPLICATION: **US/09/768,781** TIME: 15:14:35

Input Set : **A:\Seqlist.txt**
Output Set: **C:\CRF3\05302001\I768781.raw**

L:509 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:510 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5